

CloudGate

KNX CARDS



CONNECTING THINGS to the Cloud

- Adds a KNX Twisted Pair TP1 interface and 80mA DPSU to the CloudGate
- On board Real Time Clock and microSD card reader
- USB connector and optional plug-on module for additional interfacing or 2nd KNX bus
- Built in microcontroller offloads all I/O from CloudGate



The KNX Card provides the CloudGate with a TP1 interface to a KNX installation. It can also accept a range of Option or third party developed I/O expanders that match the card to specific applications.

The KNX base board (CG1110-12012) contains a KNX TP1 interface that is connected to the front connector, labeled as KNX1. There are two LED's and a pushbutton for status indication and configuration. There is an 80mA DPSU on board for powering the KNX1 interface. The DPSU can be enabled/disabled by a jumper setting. The status of the DPSU is indicated by a LED on the front panel. Both the KNX interface and the DPSU are galvanically isolated from the CloudGate itself.

The base board has an on board microcontroller for I/O handling and real time clock functionality. Memory expansion is possible by inserting a µSD card into a dedicated socket. There is also a USB A-type connector for additional interfacing.

Optionally the KNX base board can be equipped with a plug-on module. Currently there are two plug-on modules available.

- The first one contains a second TP1 interface. This second interface can be connected via jumper settings either to the KNX2 front connector or to the KNX1 front connector in parallel with the TP1 interface on the base board itself. Also for this KNX plug on module there are two LED's and a pushbutton for status indication and for configuration. There is a galvanic isolation between KNX2 and CloudGate and also between KNX1 and KNX2. The bus power for the KNX2 interface has to be foreseen externally.
- The second plug-on module contains an RS485 interface and a smart meter P1 port interface.

*Specifications are subject to change.
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Features	Description
KNX base board (CG1110-12012)	
KNX1 front connector	<ul style="list-style-type: none"> • KNX TP1 interface • Push button and LED status indication • Galvanic isolation
KNX DPSU	<ul style="list-style-type: none"> • Isolated 80mA power supply for powering the KNX1 interface • LED for status and over-current indication
CloudGate input voltage	<ul style="list-style-type: none"> • 24V DC in case the KNX card is inserted
KNX2 front connector	<ul style="list-style-type: none"> • Optional second KNX interface via plug on module • Push button and LED status indication
RTC	<ul style="list-style-type: none"> • On board Real Time Clock • Typical standby time up to 4 days at 25 degr.C
USB type A	<ul style="list-style-type: none"> • Allows connection of USB 2.0 HS host devices • Power switch and over-current protected
µSD socket	<ul style="list-style-type: none"> • µSD card for memory expansion
Operating temperature	<ul style="list-style-type: none"> • -5°C to +45°C
Humidity (operational)	<ul style="list-style-type: none"> • 5% - 95% RH, non condensing
Storage temperature	<ul style="list-style-type: none"> • -40°C to +85°C
Certification	<ul style="list-style-type: none"> • CE, compliant to KNX standards



Plug on modules for KNX base board



KNX plug on	<ul style="list-style-type: none"> • Third-party module containing KNX TP1 interface • Can be connected to KNX1 or KNX2 via jumper settings
RS485 plug on	<ul style="list-style-type: none"> • Galvanically isolated RS485 interface • SW selectable 5V/9V/12V – 1A power output pin • Some components on KNX base board not mounted to provide more space for I/O front connector
Other possible I/O plug on modules	<ul style="list-style-type: none"> • Other interfacing modules can be developed on request • Different I/O connectors possible with dedicated front panel • If needed the KNX base board can be understuffed to provide more space for the I/O connector



1. Define start-up configuration on CloudGate provisioning server



2. Configuration and any custom middleware are automatically installed



3. Device is ready to connect things to the Cloud!

